

Bite Me 2.0: Food Security & Sustainability



**Botany 110, Biology 100,
Nutrition 100
or Environmental Science 100
and
ENGL 101 Written Expression,
ENGL 201 Research Paper
or ENGL 271/272 Expository Writing
or ENGL 111 Intro to Literature
or ENGL 226 Literature & Current Issues**

Instructors



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Course Description

Drive-thru or dining room table? Factory-processed or home-grown? Broccoli, barley, beans or edible food-like substances? What's cheap about cheap food? Is all food equal? What is real? Do you eat for nutrients, taste or cost? The focus of this course is the impacts of lifestyle choices in regard to food. We will examine our behaviors, choices, and responsibilities and consequences of our actions to our communities, nation and the entire globe by investigating ecosystem interconnections. Through our readings and discussions, we will evaluate diverse opinions and values in order to scrutinize our own personal beliefs.

Required Texts:

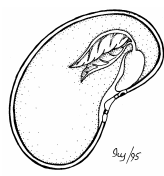
American Terroir by Rowan Jacobsen
Food Politics by Marion Nestle
In Defense of Food by Michael Pollan
The Ethics of What We Eat by Peter Singer & Jim Mason
Food Rebellions! by Eric Holt-Gimenez & Raj Patel
The Atlas of Food by Erik Millstone

Resources on Reserve (BCC Library):

Plants & Society by Estelle Levetin
Science for Life by Colleen Belk & Virginia Borden
Principles of Environmental Science by W.P. Cunningham & M.A. Cunningham
Understanding Nutrition by Whitney & Rolfes

TYPICAL WEEK

TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
LECTURE/DISCUSSION SEMINAR	WRITING LAB	LECTURE/DISCUSSION FILMS	DISCUSSION SEMINAR



Though I do not believe that a plant will spring up where no seed has been, I have great faith in a seed. Convince me that you have a seed there, and I am prepared to expect wonders.

-Henry David Thoreau

I was determined to know beans.

- H.D.T.

We don't see things as they are;
we see things as we are.

- Anais Nin



COURSE POLICIES

This is an Interdisciplinary class. One of the goals of an IDS class is to dissolve traditional barriers between disciplines as we investigate a common theme. Another barrier we seek to dissolve is the one that separates teachers and students. In an IDS class, we are all teachers and we are all students. This means that you, every one of you, are the driving force of the course. You will be asked to make several decisions concerning form and content of the course. Working collaboratively with other students and the instructors, you will work to keep what works working, and to solve any problems that come up. Yet another characteristic of an IDS course is that you are primarily responsible for your own education, not others in the class, nor the instructors, although we will all do what we can to help. Should you find something interfering with your ability to get the most out of this class, it is up to you to address this problem with either your seminar group, or the class as a whole. From that point on, all concerned parties will work together to resolve the problem.

Keep in mind that this is not a “Warm Body” class; one of those classes which you attend half conscious, take the occasional note and leave. Expect to be challenged, expect to contribute regularly, and expect to labor hard to develop your understanding of the material. As with most courses, we will be trying to do too much in too little time, so we will need to divide the workload equally, every student responsible for more than simply his or her own success or failure. You will spend a majority of your class time doing hands- on activities and group work both seeking and giving assistance. If you, for whatever reason, are not prepared or able to be an *active, responsible* member of this learning community, then another class may more suit your needs.

LATE ASSIGNMENTS

All assignments are due in class on the specified date. On days when drafts are discussed, either in groups or as a whole class, those without drafts will be excused and suffer a participation grade reduction. On days when papers (essays, seminar papers, etc.) are due to the instructors, we expect them in class. We will accept nothing late unless specific arrangements have been made **before** the class in which it is due. We will permit such an arrangement only once.

REQUIREMENTS & GRADES

You will receive two grades for this class. One will be assigned for Composition and the other for the Science class you are registered for. Your final grade will be based on these components:

Composition Grade

Portfolio 70%
Seminar 20%
Class Participation ... 10%

Botany 110/

Biology 100 Grade

Midterm Exam 20%
Final Exam 20%
Lab Project 20%
Projects* 30%
Seminar (papers) 20%
Class Participation ... 10%

English 111**/Nutrition 130**/ Environmental Science 100** Grade

Midterm Exam 20%
Final Exam 20%
Projects* 30%
Seminar (papers) 20%
Class Participation ... 10%

*Projects include: consumption journal, greenhouse journal, nutrition journal and other assignments.

**Writing portfolios are required for all students enrolled in this course. If you are not enrolled in a composition course, talk with your instructors regarding the writing portfolio.

SEMINAR PAPERS

Format: 500 words typed or word processed, single spaced.

Objective: To develop thinking on reading material by responding to all or any part of it in writing.

Seminar papers are your somewhat formalized thoughts on some aspect of the material. They will serve to generate discussion in your groups and may later serve as the seeds for your essays. We will evaluate them primarily on the depth of understanding and thought they reflect. We are less concerned with technical conventions (grammar, spelling, sentence structure, etc.); however, carelessly composed, sloppy response papers will receive no credit; those papers that fail to make a point clearly or whose point we cannot follow due to careless rendering will also receive no credit. Having said that, please explore, discover new, deeper ways to understand the material. Seminar papers will receive a maximum of 5 points and must be submitted as a paper copy at the end of the class seminar.

Keep in mind:

- *Seminar papers address all or any part of the reading
- *Seminar papers state what the author says (elements you are responding to)
- *Seminar papers explain what the author means
- *Seminar papers explore your thoughts on selected material
- *Seminar papers can explore connections between reading material and related issues/readings
- *Seminar papers ARE NOT SUMMARIES

ATTENDANCE AND PARTICIPATION

To receive full credit for this component, you must attend class daily and on time, have with you all written work and text books on days that you may need them, have all completed drafts in hand for peer critique sessions, participate actively in class discussions by offering insightful or thought provoking, relevant comments that advance and develop the discussion.

PORTFOLIO OVERVIEW

In brief, your portfolio grade is based upon the quality of the final drafts of three self-selected papers (for English 201: two papers, one of which must be the research paper), the degree to which they have been revised and to which the revisions indicate significant improvement, a self-evaluation, and the overall completeness, appearance and presentation of the portfolio itself. Details about portfolios and the criteria used to grade them will follow.

Description

All the writing you do in this class (we are asking you to submit your Seminar Papers even though we will evaluate them as a part of your seminar grade) will be kept in the portfolio. The portfolio is submitted for grading at the end of the quarter. This gives the instructor the opportunity to respond to student writing in progress, to offer suggestions for continued revision as well as praise for improvement, and to suspend the grade until students have learned, practiced and refined writing skills.

Please make your document look professional. We suggest a loose-leaf binder with tabs so that the evaluator can easily find each paper and remove it if necessary. Since this will be a thick document, please choose a binder that will keep things together and will not fall apart.

Document should include, in this order:

1. A 1-2 page, typed, double-spaced self evaluation (typed or computer generated). Briefly describe your writing process, and then rank your papers from most effective to least effective and, more importantly, why. Your evaluation should provide insight into your writing process as well as your comments on the final product. You may want to address these critical questions: 1. What is a good paper? 2. How do I attempt to meet the standards of a good paper? 3. How successful was I at meeting these goals? We suggest a substantial paragraph on each of the papers followed by a paragraph evaluating your participation in seminars, peer writing groups and overall class discussions. The final paragraph should include your frank self-evaluation of the portfolio, including the grade you think the portfolio deserves. We will give your statement considerable weight, but we reserve the right to go lower or higher as we see fit.
2. The final revisions and all drafts of all papers. Place the papers in the order in which you ranked them.
3. Seminar Response Papers.

Evaluation of Portfolio

1. Document Compliance
 - A. Professional Appearance
 - B. Completeness
2. Self-Evaluation
 - A. Papers Ranked
 - B. Reasons for Ranking Order
 - C. Participation Evaluation
 - D. Your Grade for Your Portfolio
3. Drafts of All Papers (Final Draft on Top)
 - A. Conceptually Revised
 1. Clear, Significant Central Themes
 2. Sufficient Development of Ideas
 3. Paper Appropriate to the Assignment
 4. Address Audience
 - B. Organizationally Revised
 - C. Edited (with careful attention to problems previously flagged)



"I think it would be a good idea."

- **Mahatma Gandhi**

(when asked what he thought of Western civilization)



Our task must be to free ourselves by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty. - **Albert Einstein**

Do not divert your love from visible things. But go on loving what is good, simple and ordinary; animals and things and flowers, and keep the balance true. – Rainer Maria Rilke

COURSE OUTCOMES

By the end of the course, students will be able to:

- Write effective essays which demonstrate the ability to:
 - Use all stages of the writing process
 - Produce a substantive topic
 - Use a variety of modes, such as narration, exposition, analysis and/or argumentation
 - Address a variety of audiences
- Given a text, demonstrate the ability to:
 - Analyze it for structural elements
 - Evaluate and interpret it
 - Differentiate their personal opinions and assumptions from the author's
- Articulate a realistic sense of their own writing performance in specified criteria areas
 - Students will practice teamwork and collaboration skills: to explore ideas cooperatively, respect others' insights and opinions and develop areas of consensus and agreement.
 - Students will develop attitudes of responsibility for one's own learning: developing learning goals, taking initiative, following up intuitions, and evaluating progress.
 - Students will demonstrate skills for carrying on productive dialogue of controversial topics.
 - Students will demonstrate critical reading skills; to be able to understand, compare and contrast, and evaluate the strength of an author's argument.
- Demonstrate the methodology of scientific inquiry by using observation, experimentation, data collection and interpretation, etc., in everyday problem solving and the generation of new knowledge.
- Describe how the first and second laws of thermodynamics relate to living systems.
- Explain the special properties of water that support life.
- Compare the functions and chemical compositions of the major groups of organic compounds: carbohydrates, lipids, proteins, and nucleic acids.
- Justify why the cell is the basic unit of life. Evaluate size relationships among different cells and cell structures.
- Describe the structure and function of all the organelles and their relationship to each other.
- Compare and contrast Eukaryotic and Prokaryotic cells.
- List the characteristics of Earth's biomes.
- Evaluate the role of biotic organisms in the recycling of water and elements such as carbon and nitrogen.
- List the necessary raw materials of photosynthesis and the primary end products.
- Separate and identify the photosynthetic pigments using paper chromatography and state their function.
- Compare the roles of mitosis and meiosis in reproduction.
- Summarize the evidence supporting the theory of evolution.
- Analyze the origin of life and the relationship of photosynthetic organisms to the colonization of the terrestrial environment.
- Apply their understanding of the effect of the origin of photosynthetic organisms on Earth's abiotic environment to analyze the current use of the planet by humans.
- Describe the evolutionary transition of photosynthetic organisms from an aquatic to terrestrial environment using scientific names and key physical and physiological characteristics for each phylum.
- Identify the parts of roots, stems, leaves, flowers, fruits and seeds.
- Explain the functional significance of differences in plant organ structure with regard to environmental influences.
- Distinguish between various pollination mechanisms using floral characteristics.
- Describe the ecological, anatomical and morphological significance of species interactions and interrelationships.
- Evaluate the significance of the top 20 crops grown for human consumption.
- List two edible species in each of ten families using correct Latin binomial syntax.
- Develop an appreciation for the diversity of foods we consume, as well as, those we can potentially consume.
- Explain the theory of evolution and its role as the central theme in biology.
- Recognize that the proper subject matter of science is the natural (physical) world, and that science is based on common principles and methods.
- Define basic genetic principles and solve inheritance problems.
- Explain the biology and techniques of recombinant DNA, cloning, and DNA identification.
- Analyze the biological, social and ethical implications of advances in biotechnology.

- Distinguish between asexual and sexual reproduction and list the advantages and disadvantages of each.
- Define the role of the immune system in fighting disease.
- Develop team work skills by working collaboratively on group activities and projects.
- Discuss how our tastes, body's adaptations for nutrient storage, stress response, and physical activity are related to our biological heritage.
- Describe the structure and function of the digestive, circulatory and excretory systems.
- Explain ways to treat and prevent common digestive problems.
- Identify the major food groups of the USDA food pyramid.
- Interpret accurately food label information.
- Describe how to make good food choices for health and fitness.
- Explain how carbohydrates, proteins, and lipids are used in the body.
- List good food sources for the different vitamins and minerals.
- List the benefits of complex carbohydrates and fiber in the diet.
- Describe the role of diet in updating and maintaining health and fitness
- Explain public concerns about food safety.
- Do something to help the hungry of our local area.
- Demonstrate the importance of using critical thinking and the scientific method to understand how human activities affect the limited resources of our planet.
- Outline and describe the major components of an ecosystem by creating a concept map of the biotic components of an ecosystem.
- Describe the ways that human activities have unbalanced biogeochemical cycles, leading to current environmental dilemmas.
- Demonstrate a written knowledge of the major types of air and water pollution that affect global health.
- Compare and contrast the population dynamics controlling the growth of other species with the growing global human population.
- Define biodiversity and outline the major threats to biodiversity existing today.
- Compare and contrast current conventional energy uses with those of sustainable energy.
- Explain how the dumping of solid, toxic, and hazardous wastes relate to environmental health.
- Demonstrate, both verbally and in writing, how each human has an impact on environmental sustainability.



History celebrates the battlefields whereon we meet our death, but scorns to speak of the plowed fields whereby we thrive; it knows the names of King's bastards, but cannot tell us the origin of wheat. That is the way of human folly.

Jean Henri Fabre

I am enthusiastic over humanity's extraordinary and sometimes very timely ingenuities. If you are in a shipwreck and all the boats are gone, a piano top buoyant enough to keep you afloat may come along and make fortuitous life preserver. This is not to say, though, that the best way to design a life preserver is in the form of a piano top. I think that we are clinging to a great many piano tops in accepting yesterday's fortuitous contrivings as constituting the only means for solving a given problem.

- R. Buckminster Fuller

Mi takuye oyasin - **Lakota**
(We are all related)
Koyaanisqatsi - **Hopi**
(Life out of balance)

Growth for the sake of growth is the ideology of the cancer cell.
- Edward Abbey

I have learned to seek my happiness by limiting my desires rather than attempting to satisfy them. **- John Stuart Mill**

In the end, we will preserve only what we love, love only what we understand, understand only what we are taught.

- Baba Dioum

It is good to have an end to journey toward; but it is the journey that matters, in the end.

- Ursula K. Le Guin